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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,793	07/12/2001	Thomas Anschutz	BELL-0103/01023	1480
38952	7590	12/12/2005	EXAMINER	
WOODCOCK WASHBURN LLP ONE LIBERTY PLACE - 46TH FLOOR PHILADELPHIA, PA 19103			PHAM, BRENDA H	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/903,793

Applicant(s)

ANSCHUTZ, THOMAS

Examiner

Brenda Pham

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-18 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-29 is/are allowed.
- 6) ☒ Claim(s) 1-3,5-18, 20-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 1-29 are pending in this application.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5-8, 12-15, 18, 20-24 are rejected under 35 U.S.C. 102(e) as being anticipated by VON HAMMERSTEIN et al (US 6,278,708 B1).

Claims 1, 7, 12, VON HAMMESTEIN et al discloses a method and network for transporting a data packet to afforded one of a plurality of service classes (voice, data and LMI) comprising: a plurality of managed network element (figure 6 shows a LOCAL FRAD 62 and REMOTE FRAD 64, also figure 10 shows a detailed of managed network element), each managed element (FRAD 62, 64) partitioned into a plurality of element instances (LMI processing logic 135, Fragmenting logic 139 and voice packetizer 141), each element instance (LMI processing logic 139 and Fragmenting logic 139 and voice packetizer 141) in a given managed element to provide one of the service classes (voice frames, burst data packets, link status packet), wherein the element instances are connected to element instances that provide the same service class via permanent

virtual circuits (see figure 5C and column 9, line 20-28, figure 5C shows that the same service class (voice bundle or burst data bundle) via permanent virtual circuits; and a plurality of communication links (see figure 6) connecting the managed elements to each other, the communication links carrying the data packet between the managed elements. VON HAMMESTEIN et al further teach determining the service class of the data packet at only one managed element in the network (column 15, lines 20-28).

**{(VON HAMMESTEIN et al teach the egress packet steering logic 125 of the managed element determines the service class of the packet by determines whether the packets are voice frames, bursty data packets, link status packets (e.g., KACS, CM or CID message) or LMI status packets and forward them accordingly to either audio regeneration logic 131, a defragmenter 133, link management logic 137 or the LMI processing logic 135.)}**

Claims 2, 3 and 13, 14, VON HAMMESTEIN et al teach the method of claim 1 and 12, wherein the service classes comprise high, medium and low priority.

**{The queue service engine 233 is used to enforce a priority scheme in which link status packets are given top priority, voice packets are given second priority and bursty data packets are given lowest priority (column 18, lines 1-11).}**

Claims 5 and 20, VON HAMMESTEIN et al teach the method of claim 1 and 12, wherein the one managed element comprises the first managed element to handle the

data packet (**figure 6 shows a local FRAD 62, which is the first managed element to handle the data packet.**)

Claims 6 and 21, VON HAMMESTEIN et al further teach the method of claim 5 and 20, wherein the one managed element resides at the edge of the network (**figure 6, element 62 and 64 are edge nodes**).

Claims 7 and 22, VON HAMMESTEIN et al further teach the method of claim 1 and 12, wherein the determining comprises examining a plurality of data packet field (**see figure 8**).

Claim 8, VON HAMMESTEIN et al teach the method of claim 7, wherein the field comprises an indicator of the source or destination address **{To support sub-multiplexing of PVCs that carry bursty data, a local FRAD receives outbound packet from a router inspects the destination DLCI in each packet, then modifies the address field of each packet according to the destination DLCI, (column 6, lines 63-67).}**

Claim 18, VON HAMMESTEIN et al teaches the network of claim 12, wherein the network comprises a service provider network (**network shows in figure 6 is a service provider network**).

Claim 23, VON HAMMESTEIN et al teach the network of claim 22, wherein the fields comprise an indicator of what type of application originally generated the data packet **{The destination DLCI is also referred to as a user DLCI because it usually corresponds a user station on a network (column 7, lines 2-4)}**.

Claim 24, VON HAMMESTEIN et al teach the network of claim 12, wherein each managed element (intermediate packet switches (not shows) coupled within the FRN 12 which coupled to LOCAL FRAD 62, provide the data packets a high switching service across FRN network) for handling the data packet subsequent to the determination of service class utilizes an element instance corresponding to the element instance utilized by the managed element (FRAD 62) that forwarded the data packet.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over VON HAMMERSTEIN et al (US 6,278,708 B1) in view of CONNERY et al (US 5,937,169).

Claims 9 and 10, as explained in the rejection statement of claim 1, 7 (parent claims), VON HAMMERSTEIN et al disclose all claim limitations recited in parent

claims. VON HAMMERSTEIN et al does not teach wherein the field comprises a port identifier and wherein the field comprises a protocol identifier.

CONNERY et al in the same field of endeavor, teach a TCP/IP header comprises IP header with protocol identifier field and TCP header with source port and destination port fields (see figure 4).

IP header and TCP header such as that shows in figure 4 are standard data packet header field in the TCP/IP protocol suite.

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement port identifier and protocol identifier in TCP/IP packet header such as that shows in CONNERY et al for transferring packet data through frame relay network using TCP/IP protocol.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over VON HAMMERSTEIN et al) in view of BERL et al (US 5, 991,302).

Claim 11, as explained in the rejection statement of claim 1, 7 (parent claims), VON HAMMERSTEIN discloses all claim limitations recited in parent claims. VON HAMMERSTEIN et al does not teach wherein the field comprises a precedence indicator.

BERL et al, in the same field of endeavor, teach this limitation (see column 10, lines 16-50).

**{BERL et al teach according to column 10, line 20-50, that higher priority packet are transferred through the core IP backbone network where priority is**

**preserved at intermediate queuing points of routers on the basis of the value of the precedence bits in the IP header. Significantly, packet of the higher priority TCP session may be delivered to the destination node 650 before packet of the lower priority TCP sessions even though the lower priority packets were sent first by node 600. these subsequently-transmitted lower-priority packets may be "queued-up" at the intermediate router 690 of IP network 605 and transmitted when appropriate (column 10, lines 20-45)).**

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement a precedence indicator in packet header, such as that taught by BERL et al, in VON HAMMERSTEIN to preserve the priority and order of the packet across the network.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over VON HAMMERSTEIN et al (US 6,278,708) in view of McConnell et al (US 6,108,307).

Claim 16, as explained in the rejection statement of claim 12 (parent claim), CHUI discloses all claim limitations recited in parent claim. VON HAMMERSTEIN et al does not teach wherein the service classes comprise best efforts priority.

McConnell et al teach this limitation.

{McConnell et al teach that the priority levels may be arbitrarily assigned from low to high, or may be predetermined to reflect or may to quality of service parameters associated with a backbone network. For instance, the queues 50, 52, 54, 56 may respectively represent high priority, medium priority, low priority and best effort priority



levels, respectively. The high priority level will be associated with Frame Relay connections whose service class will only be permitted to degrade last if congestion occurs. The best effort priority level pertains to Frame Relay connections whose service class will be permitted to degrade first if network congestion occurs.}

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement the best effort priority, such as that taught by McConnel et al to help reduce traffic congestion in higher priority class.

***Allowable Subject Matter***

8. Claims 25-29 are allowed over prior art.

9. The following is a statement of reasons for the indication of allowable subject matter: the prior art made of record does not teach or fairly suggests in combination a managed network element for handling a data packet, the managed network element connected to a plurality of managed network elements, the data packet to be afforded one of a plurality of service classes, wherein the service class is predetermined at one of the plurality of managed network elements, comprising, a memory, a processor in communication with the memory, a forwarding table stored in the memory, and an application specific integrated circuit (ASIC), the memory, processor, ASIC and forwarding table comprising the element resources, the element resources being portioned into a plurality of element instances, each element instance being engineered to provide one of the service classes, wherein the element instances are connected to each other via permanent virtual circuits.

***Response to Arguments***

10. Applicant's arguments filed 9/28/2005 have been fully considered but they are not persuasive. In the REMARKS, Applicants argued that the newly added limitation "determining the service class of the data packet at only one managed element in the network" is not taught by Von Hammerstein. Examiner respectfully disagrees because Von Hammerstein indeed teaches this limitation. Von Hammerstein teaches that at the Local FRAD 62 (the edge node) the ingress packet steering logic 143 and the egress packet steering logic 125 determine whether the packets are voice frames, bursty data packets, link status packets (e.g., KACS, CM or CID messages) or LMI status packet and forward them accordingly to either audio regeneration logic 131, a defragmenter 133, link management logic 137 or the LMI processing logic 135 (column 15, lines 22-28). Examiner respectfully believes Von Hammerstein et al in view of McConnell et al and Berl disclose and render obvious all claim limitation in claims 1-3, 5-18, 20-24. Therefore, claims 1-3, 5-18, 20-24 stand rejected.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda Pham whose telephone number is (571) 272-3135. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

November 29, 2005  
Brenda Pham

*Brenda A. Pham*